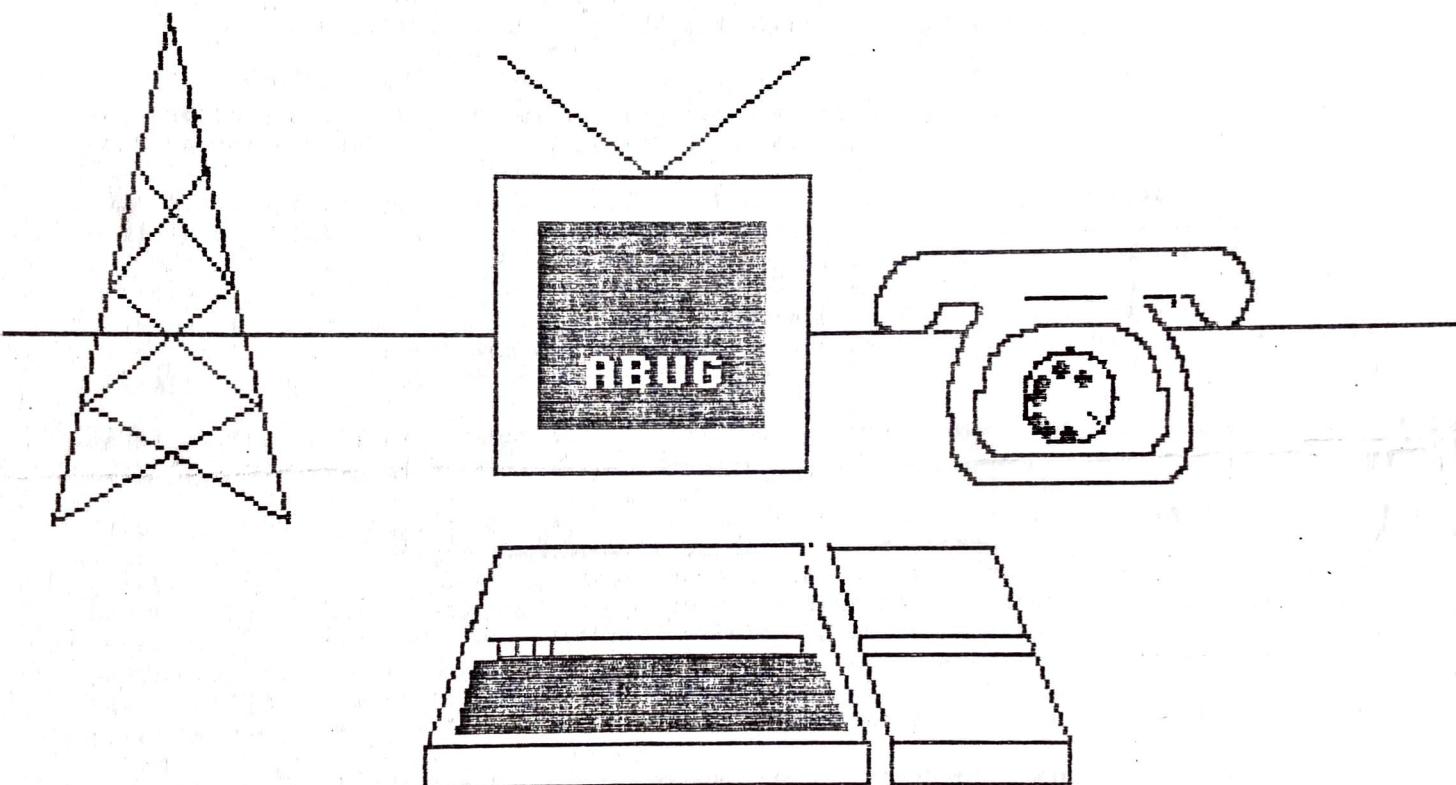


ABUG

ACORN & BBC
microcomputers
USER GROUP
Sheffield

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Communications



Newsletter 17

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Diary

July 4th	(Farfields)	Social
July 18th	(Park Baths)	A talk on communications by Peter Armstrong (University of Sheffield)
August 1st	(Farfields)	Social
August 15th	(Park Baths)	A Demonstration of second processors by Steve White (from ACORN)
September 5th	(Farfields)	Social
September 14th	(venue and event to be arranged)	

We apologise for the lack of any organised event last month. We were let down at the last moment and despite feverish efforts, we couldn't arrange anything else.

This month's front page design is by Ian Brown, and features communications which is the subject of the talk by Peter Armstrong this month. Along with robotics, this seems to be one of the boom areas for amateur computing and next month we want to include an article or two on this subject. If anyone has any experience of using Micronet or Prestel or has one of the new range of flexible modems, we would be very interested to hear about it. Even if you don't feel up to writing an article on the subject just notes or comments would be appreciated.

We have three or four demonstrations lined up for the next few months including talks on both computer control and communications.

Most people will have noted the recent demise of Superior Systems in West Street. For a brief period there were some genuine bargains to be picked from the bones but the closing sale is now over and the shop has been taken over by Wilkes Computing. They will only be dealing with business systems (nothing smaller than IBMpc, Sirius etc.) and therefore will not be of much interest unless BBC moves into the business world in a serious way. We enquired on behalf of all the people who have purchased hardware from the old shop and were told that the new company will not be honouring any guarantee given by Superior Systems. The manufacturers guarantee will of course still be valid.

The search continues for a new venue for September onwards. Although we have considered several places, none of them seems to be really suitable. As we said last month we would be grateful for any suggestions.

Graphics Robot Plotter

Recently several plotters have come on to the market in the price range of the micro hobbyists, and yet probably capable of quite serious work. A plotter uses the actual co-ordinates of a graphic display to produce a hard copy. This differs from a hard copy from a dot matrix printer which interprets the whole screen as a pattern of dots. The front cover of this newsletter is a screen dump using an Epson FX-80 dot matrix printer, and the problems associated with angled and curved lines clearly seen. A plotter would produce smooth continuous lines for all parts of the drawing.

All the plotters currently available are the flat-bed type, where the machine has a base (usually A3 size) and the pen is moved to the required position by two arms at right angles to each other. An interesting alternative is being developed by Chessell Micro Products. This is a 'free ranging' device, with some of the characteristics of a LOGO

turtle. Although aimed at the educational/LOGO market, the plotter claimed to be accurate enough for serious business applications.

The actual unit consists of two boxes connected by a ribbon cable, the overall dimensions of the units when 'parked' being 304mm x 130mm. The box which moves over the plotting surface is 130mm x 100mm and holds the three pens. It contains two stepper motors directly controlled by the computer. It has a plotting speed of 50mm per sec and contains a built-in character set and circle drawing capability. The claim is that the drawing accuracy is +/-0.5% and the character set can be as low as 1mm in height. The device uses the RS423 serial interface, which leaves the parallel port free for a conventional printer. The manufacturer predicts that independent software will be produced for applications such as LOGO, sketching, CAD, etc.

This sounds to be an interesting package and is to be available September 1984 onwards, at £200-250. We have written to Chessell Micro for further information and hope to arrange a demonstration for the club. Meanwhile, if any members are seriously interested John Bramwell has a few brochures available, or write directly. Their address is Chessell Micro Products, Southdownview Road, Worthing, West Sussex, BN14 8NL (Tel. 0903 205222)

Rom Extension Socket

National Micro Centres' ROM extension socket gives a single sideways ROM socket, which fits in the 'ashtray', and costs £22.95 including VAT and postage. For this you get a 28 pin socket fitted to a small board, connected by ribbon cable to a 28 pin header, a 28 pin zero insertion force (ZIF) socket and a cover for the ashtray.

To fit, the perforated section over the ashtray is removed with a sharp knife, the board fixed beneath it with double sided adhesive pads, and the ZIF plugged into it. The ribbon cable is passed under the keyboard, and the header plugged into the left hand sideways ROM socket (IC52). Any sideways ROM can be dropped into the ZIF (after first switching off the computer) and then clamped by moving a lever on the ZIF. Full instructions on fitting and use are supplied on a double sided A4 sheet, complete with seven diagrams.

At first sight, this is an expensive piece of hardware, since, for the same money you can buy an 8-socket internal board, and for less than twice as much, a board to allow the full 16 sockets that the BBC can support. However, this unit has certain advantages over the internal units.

1. It should cause no overheating problems.
2. It should cause no power problems.
3. It eliminates contention caused by more than one chip having the same command(s).
4. It enables you to use 'memory grabbing' chips, such as Computer Concepts' Graphics Extension ROM only when you need them, and stops the necessity of turning them off when you don't.
5. It simplifies the transfer of ROMs to, for example, Solidisk.
6. It allows you to conveniently access any number of ROMs, and to easily pick the one you need for any particular application.

There are, of course, certain disadvantages.

1. You can only have three ROMs, excluding BASIC, available at any one time.
2. The computer must be switched off to change the external ROM.
3. You have to find a safe way of storing ROMs when they are not in use.
4. The external ROM stands an inch or so proud of the keyboard, and could get accidentally knocked (although I have not had this trouble).

The equipment seems well made, and there is very little to go wrong. There is an 1100 pF capacitor soldered between pin 28 and earth on the board-mounted socket, and one end of this became unsoldered on the unit I had. It was a simple job to resolder it, but presumably the firm would have done this for me if I had sent it back. Delivery was very quick - the order was sent off on a Monday, and the kit was received 5 days later on the Friday. It has proved very effective and trouble-free in use.

The unit was obtained from National Micro Centres, 36 St Petersgate, Stockport, SK1 1HL, and you can pay by PO, cheque or credit card.

Dave Brown

Machine Code Programming

All the books and magazines written about microcomputing eventually come round to the conclusion that to do any serious programming on a micro it is necessary to have a command of the machine code relevant to the particular microprocessor. If any new members are thinking of making a start, and are unsure of which books to buy then we now have available in the library a short course on 6502 assembly language written for students at Reading Polytechnic. It has been produced using Wordwise, and could be printed out from disc. Ken West has one hard copy available for people to peruse.

Items for Sale

ATPL Sideways ROM Expansion Board.
Unused, in original box with full instructions.
£39 including an 8K Eprom.
Contact Mike Robinson

Seikosh GP-100A Printer.
Good condition with box, manual, ribbon and paper. Fourteen months old.
£130 o.n.o.
Contact B.C. Sexton (tel. no. in directory)

Seikosha GP-80A Dot Matrix Printer.
Facilities include standard width characters printing at 80 columns per line and double width printing at 40 characters per line. Dot addressable graphics up to a maximum of 480 dot positions across the paper. Tractor paper feed with up to 2 carbon copies. Print speed 30 characters per second. Standard Centronics parallel input, to suit Uric, Dragon or BBC micros. Complete with approx. 1000 sheets of paper, 2-3 ribbons and manuals. £75 o.n.o.
Contact R.W. Alderton, 77, Wilkinson St., Sheffield (tel. no. 20571)